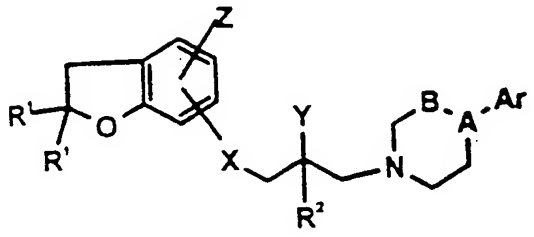
Claims:

1. A novel benzofuran derivative of the formula



I

wherein

R^1 and R^2 represent, independently, a hydrogen atom or a C_{1-4} alkyl group,

X stands for an oxygen atom or a sulfur atom,

Y means a hydrogen atom or a hydroxy group,

Z represents a hydrogen atom, a halo atom, a C_{1-4} alkyl group, a C_{1-4} alkoxy group, an amino group, a nitro group, a cyano group, a trifluoromethyl group, a group of the formula $-COOR^3$, $-NHCOR^3$ or $-SO_2NR^3R^4$, wherein

R^3 stands for a hydrogen atom or a C_{1-4} alkyl group,

R^4 is a C_{1-4} alkyl group, or

R^3 and R^4 form, together with the adjacent nitrogen atom, a saturated or unsaturated heterocyclic group having 5 to 10 members and optionally comprising one or more nitrogen atom(s) and/or one or more oxygen atom(s) and/or one or more sulfur atom(s) as the further heteroatom(s),

A means a group of the formula CH, COH, C-CN, $C-COOR^3$ or COR^4, wherein R^3 and R^4 are

as defined above,

B represents a methylene group, or

A forms together with B a group of the formula -C=C-,

Ar stands for a hydrogen atom, a C_{1-4} alkyl group, a phenyl(C_{1-4} alkyl) group, a biphenylyl group, a naphthyl group, wherein said latter species are optionally substituted by a C_{1-4} alkoxy group or a C_{2-4} alkenyl group; a partially saturated, 5- or 6-membered heterocyclic group condensed with a phenyl group and containing one or two oxygen atom(s), said heterocyclic group being optionally substituted by one to three C_{1-4} alkyl group; a 5- or 6-membered, saturated or unsaturated hetero cyclic group containing a nitrogen atom and/or an oxygen atom and/or a sulfur atom as the heteroatom; or a phenyl group substituted by the substituents R^5, R^6 and R^7, wherein

R^5, R^6 and R^7 mean, independently, a hydrogen atom, a halo atom, a trifluoro-methyl group, a C_{1-4} alkyl group, a methylenedioxy group, a phenoxy group optionally substituted by a C_{1-4} alkoxy group or by a halo atom; a C_{2-4} alkenyl group, a C_{2-4} alkenyloxy group, a C_{1-4} alkoxy group optionally substituted by a di(C_{1-4} alkyl)amino group or by a 5- or 6-membered, saturated hetero-cyclic group containing one or two

nitrogen atom(s) or a nitrogen atom and an oxygen atom, wherein said heterocyclic group is optionally substituted by a C_{1-4} alkyl group, or

A stands for a group of the formula $N-(CH_2)_n-Ar'$, wherein

Ar' represents a diphenylmethyl group, a pyridyl group, a pyrimidinyl group, a naphthyl group, wherein said latter group is optionally substituted by a C_{1-4} alkoxy group or a C_{2-4} alkenyloxy group; a partially saturated, 5- or 6-membered heterocyclic group condensed with a phenyl group and containing one or two oxygen atom(s), said heterocyclic group being optionally substituted by one to three C_{1-4} alkyl group(s); or a phenyl group substituted by the substituents R^5, R^6 and R^7, wherein R^5, R^6 and R^7 are as defined above,

n has a value of 0 or 1,

and pharmaceutically suitable acid addition salts thereof.

2. A benzofuran derivative as claimed in Claim 1, wherein in formula I

R^1 represents a hydrogen atom or a C_{1-4} alkyl group,

R^2 stands for a hydrogen atom,

X means an oxygen atom,

Y is a hydrogen atom or a hydroxy group,

Z represents a hydrogen atom, a halo atom

or a nitro group,

A stands for a group of the formula CH, COH or C-CN,

B means a methylene group, or

A forms with B a group of the formula -C=C-,

Ar represents a hydrogen atom, a benzyl group, a phenyl group substituted by substituents R^5, R^6 and R^7, a biphenylyl group, a naphthyl group optionally substituted by a C_{1-4} alkoxy group; or a thienyl group, wherein

R^5, R^6 and R^7 mean, independently, a hydrogen atom, a halo atom, a trifluoromethyl group, a C_{1-4} alkyl group, a C_{1-4} alkoxy group, a C_{2-4} alkenyloxy group, a phenoxy group or a methylenedioxy group,

and pharmaceutically suitable acid addition salts thereof.

3. A benzofuran derivative as claimed in Claim 1 or 2, wherein in formula I

R^1 represents a methyl group,

R^2 stands for a hydrogen atom,

X means an oxygen atom,

Y is a hydroxy group,

Z represents a hydrogen atom,

A is a group of the formula CH, COH or C-CN,

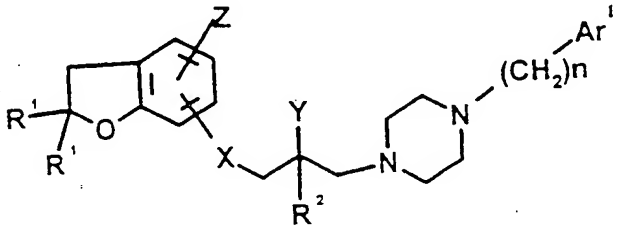
B stands for a methylene group, or

A forms with B a group of the formula -C=C-,

Ar represents a phenyl group optionally substituted by a halo atom, a trifluoromethyl group, a methyl group or a methoxy

group; or a methoxynaphthyl group,
and pharmaceutically suitable acid addition salts thereof.

4. A piperazinylalkylbenzofuran derivative of the formula



Ia

as claimed in Claim 1, wherein
R^1 represents a C_{1-4} alkyl group,
R^2 stands for a hydrogen atom,
X means an oxygen atom,
Y is a hydroxy group,
Z represents a hydrogen atom,
Ar' represents a diphenylmethyl group, a pyridyl group, a partially saturated 5-membered heterocyclic group containing two oxygen atoms and being condensed with a phenyl group, or a phenyl group substituted by substituents R^5, R^6 and R^7, wherein
R^5, R^6 and R^7 mean, independently, a hydrogen atom, a halo atom, a trifluoromethyl group, a C_{1-4} alkyl group, a C_{1-4} alkoxy group, or a methylenedicxy group,
n has a value of 0 or 1,
and pharmaceutically suitable acid addition salts thereof.

5. A piperazinylalkylbenzofuran derivative as claimed in Claim 4, wherein in formula Ia

R^1 represents a methyl group,

R^2 stands for a hydrogen atom,

X means an oxygen atom,

Y is a hydroxy group,

Z represents a hydrogen atom,

Ar' represents a diphenylmethyl group, a pyridyl group, a benzo-1,3-dioxolanyl group or a phenyl group optionally substituted by one or two halo atom(s), one or two methyl group(s), a methylenedioxy group, a trifluoromethyl group or a methoxy group,

n has a value of 0 or 1,

and pharmaceutically suitable acid addition salts thereof.

6. 1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yloxy)-2-hydroxypropyl/-4-(3-trifluoromethylphenyl)-1,2,3,6-tetrahydropyridine,

1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yloxy)-2-hydroxypropyl/-4-hydroxy-4-(3-trifluoromethylphenyl)piperidine,

1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yloxy)-2-hydroxypropyl/-4-hydroxy-4-(4-fluorophenyl)piperidine,

1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yloxy)-2-hydroxypropyl/-4-hydroxy-4-phenylpiperidine,

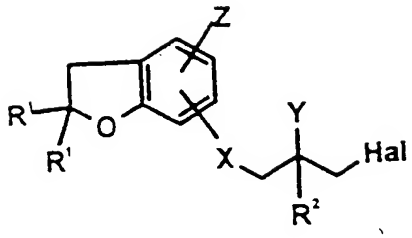
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yloxy)-2-hydroxypropyl/-4-hydroxy-4-(3-chlorophenyl)piperidine,

1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-hydroxy-4-(3-methoxy-phenyl)piperidine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-hydroxy-4-(4-methoxy-phenyl)piperidine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-(3-trifluoromethyl-phenyl)piperidine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-hydroxy-4-(4-methyl-phenyl)piperidine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-cyano-4-phenyl-piperidine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-hydroxy-4-(4-chloro-phenyl)piperidine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-hydroxy-4-(6-methoxy-naphth-2-yl)piperidine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-(diphenylmethyl)-piperazine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-(4-fluorophenyl)-piperazine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-hydroxy-4-(3-trifluoro-methylphenyl)piperazine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-(4-methoxyphenyl)-

piperazine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-(benzo-1,3-dioxolan-5--yl)piperazine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-(4-chlorophenyl)-piperazine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-benzylpiperazine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-(2,4-dichlorophenyl)-piperazine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-(3-chlorophenyl)-piperazine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-(2-pyridyl)piperazine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-(2-methoxyphenyl)-piperazine or
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-(3-methoxyphenyl)-piperazine,
and pharmaceutically suitable acid addition salts thereof.

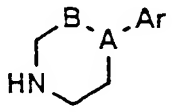
7. A process for the preparation of a benzofuran derivative of the formula I, wherein R^1, R^2, Z, X, Y, A, B and Ar are as defined in Claim 1, or a pharmaceutically suitable acid addition salt thereof, characterized in that

a) a halide of the formula



II

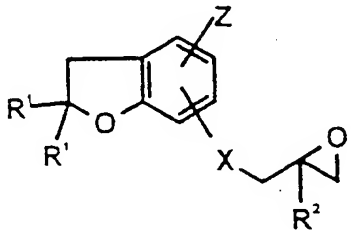
wherein R^1, R^2, X, Y and Z are as defined in connection with formula I, Hal represents a halo atom, is reacted with a secondary amine of the formula



IV

wherein A, B and Ar are as stated in connection with formula I; or

b) for the preparation of a benzofuran derivative of the formula I, wherein Y represents a hydroxy group, R^1, R^2, X, Z, A, B and Ar are as defined in connection with formula I, an epoxide of the formula

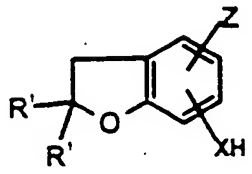


III

wherein R^1, R^2, Z and X are as defined above, is reacted with a secondary amine of the

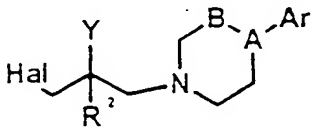
formula IV, wherein A, B and Ar are as stated above; or

c) a compound of the formula



V

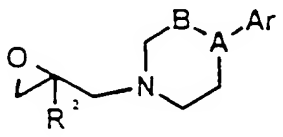
wherein R^1, X and Z are as defined in connection with formula I, is reacted with a halo compound of the formula



XI

wherein R^2, Y, A, B and Ar are as stated in connection with formula I, Hal represents a halo atom;

d) for the preparation of a benzofuran derivative of the formula I, wherein R^1, R^2, X, Z, A, B and Ar are as defined in connection with formula I, a compound of the formula V, wherein R^1, X and Z are as stated above, is reacted with an epoxide of the formula

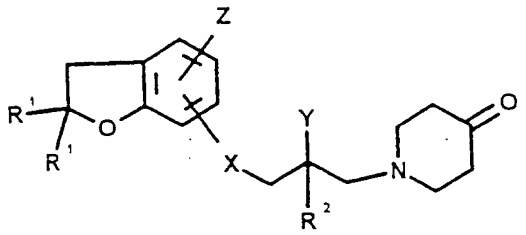


XII

wherein R^2, A, B and Ar are as stated above; or

e) for the preparation of a benzofuran derivative of the formula I, wherein A forms with B a group of the formula -C=C-, R^1, R^2, X, Y, Z and Ar are as defined in connection with formula I, a benzofuran derivative of the formula I, wherein A stands for a group of the formula COH, B represents a methylene group, R^1, R^2, X, Y, Z and Ar are as stated above, is dehydrated; or

f) for the preparation of a benzofuran derivative of the formula I, wherein A represents a group of the formula COH, B stands for a methylene group, R^1, R^2, X, Y, Z and Ar are as defined in connection with formula I, however, Ar is other than a hydrogen atom, a ketone of the formula



XV

wherein R^1, R^2, X, Y and Z are as stated above, is reacted with an arylmagnesium halide of the formula

Hal-Mg-Ar XVI

wherein Ar is as stated above, Hal represents

a halo atom, and the adduct formed is decomposed with water; or

g) for the preparation of a benzofuran derivative of the formula I, wherein A represents a group of the formula COH, B stands for a methylene group, R^1, R^2, X, Y, Z and Ar are as defined in connection with formula I, but Ar is other than a hydrogen atom, a ketone of the formula XV, wherein R^1, R^2, X, Y and Z are as stated above, is reacted with an aryl lithium compound of the formula

Li-Ar XVII

wherein Ar is as stated above, and the adduct formed is decomposed with water; or

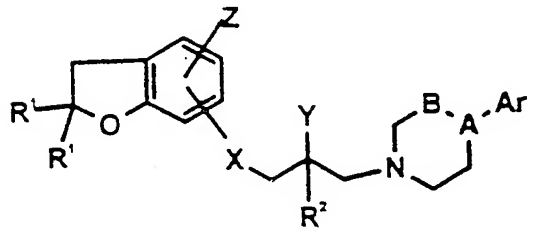
h) for the preparation of a benzofuran derivative of the formula I, wherein A represents a group of the formula CH, B stands for a methylene group, R^1, R^2, X, Y, Z and Ar are as defined in connection with formula I, a compound of the formula I, wherein A forms with B a group of the formula -C=C-, R^1, R^2, X, Y, Z and Ar are as stated above, is hydrogenized; or

i) for the preparation of a benzofuran derivative of the formula I, wherein A represents a group of the formula CH, B stands for a methylene group, R^1, R^2, X, Y, Z and Ar are as defined in connection with formula I, an epoxide of the formula III, wherein R^1, R^2, Z and X are as stated above, is reacted

with a secondary amine of the formula IV, wherein A stands for a group of the formula CHOH, B and Ar are as stated above, under dehydrating reaction conditions, and the formed compound of the formula I, wherein A forms with B a group of the formula -C=C-, R^1, R^2, X, Y, Z and Ar are as stated above, is hydrogenized in the reaction mixture in which it was prepared; and

if desired, an obtained base of the formula I is reacted with an inorganic or organic acid to form a pharmaceutically suitable acid addition salt thereof, or liberated from the acid addition salt with a base.

8. A pharmaceutical composition comprising a benzofuran derivative of the formula



I

wherein

R^1 and R^2 represent, independently, a hydrogen atom or a C_{1-4} alkyl group,

X stands for an oxygen atom or a sulfur atom,

Y means a hydrogen atom or a hydroxy group,

Z represents a hydrogen atom, a halo atom, a C_{1-4} alkyl group, a C_{1-4} alkoxy group, an amino group, a nitro group, a cyano

group, a trifluoromethyl group, a group of the formula $-COOR^3$, $-NHCOR^3$ or $-SO_2NR^3R^4$, wherein

R^3 stands for a hydrogen atom or a C_{1-4} alkyl group,

R^4 is a C_{1-4} alkyl group, or

R^3 and R^4 form, together with the adjacent nitrogen atom, a saturated or unsaturated heterocyclic group having 5 to 10 members and optionally comprising one or more nitrogen atom(s) and/or one or more oxygen atom(s) and/or one or more sulfur atom(s) as the further heteroatom(s),

A means a group of the formula CH, COH, C-CN, C-$COOR^3$ or COR^4, wherein R^3 and R^4 are as defined above,

B represents a methylene group, or

A forms together with B a group of the formula -C=C-,

Ar stands for a hydrogen atom, a C_{1-4} alkyl group, a phenyl(C_{1-4} alkyl) group, a biphenylyl group, a naphthyl group, wherein said latter species are optionally substituted by a C_{1-4} alkoxy group or a C_{2-4} alkenyl group; a partially saturated, 5- or 6-membered heterocyclic group condensed with a phenyl group and containing one or two oxygen atom(s), said heterocyclic group being optionally substituted by one to three C_{1-4} alkyl group; a 5- or 6-membered, saturated or unsaturated hetero cyclic group containing a nitrogen atom

and/or an oxygen atom and/or a sulfur atom as the heteroatom; or a phenyl group substituted by the substituents R^5, R^6 and R^7, wherein

R^5, R^6 and R^7 mean, independently, a hydrogen atom, a halo atom, a trifluoromethyl group, a C_{1-4} alkyl group, a methylenedioxy group, a phenoxy group optionally substituted by a C_{1-4} alkoxy group or by a halo atom; a C_{2-4} alkenyl group, a C_{2-4} alkenyloxy group, a C_{1-4} alkoxy group optionally substituted by a di(C_{1-4} alkyl)amino group or by a 5- or 6-membered, saturated heterocyclic group containing one or two nitrogen atom(s) or a nitrogen atom and an oxygen atom, wherein said heterocyclic group is optionally substituted by a C_{1-4} alkyl group, or

A stands for a group of the formula $N-(CH_2)_n-Ar'$, wherein

Ar' represents a diphenylmethyl group, a pyridyl group, a pyrimidinyl group, a naphthyl group, wherein said latter group is optionally substituted by a C_{1-4} alkoxy group or a C_{2-4} alkenyloxy group; a partially saturated, 5- or 6-membered heterocyclic group condensed with a phenyl group and containing one or two oxygen atom(s), said heterocyclic group being optionally substituted by one to three C_{1-4} alkyl

group(s); or a phenyl group substituted by the substituents R^5, R^6 and R^7, wherein R^5, R^6 and R^7 are as defined above,

n has a value of 0 or 1,

or a pharmaceutically suitable acid addition salt thereof as the active ingredient and one or more conventional carrier(s).

9. A pharmaceutical composition as claimed in Claim 8, comprising a benzofuran derivative of the formula I, wherein

R^1 represents a hydrogen atom or a C_{1-4} alkyl group,

R^2 stands for a hydrogen atom,

X means an oxygen atom,

Y is a hydrogen atom or a hydroxy group,

Z represents a hydrogen atom, a halo atom or a nitro group,

A stands for a group of the formula CH, COH or C-CN,

B means a methylene group, or

A forms with B a group of the formula -C=C-,

Ar represents a hydrogen atom, a benzyl group, a phenyl group substituted by substituents R^5, R^6 and R^7, a biphenylyl group, a naphthyl group optionally substituted by a C_{1-4} alkoxy group; or a thienyl group, wherein

R^5, R^6 and R^7 mean, independently, a hydrogen atom, a halo atom, a trifluoromethyl group, a C_{1-4} alkyl group, a C_{1-4} alkoxy group, a C_{2-4} alkenyloxy

group, a phenoxy group or a methylenedioxy group,

or a pharmaceutically suitable acid addition salt thereof as the active ingredient.

10. A pharmaceutical composition as claimed in Claim 8 or 9, comprising a benzofuran derivative of the formula I, wherein

R^1 represents a methyl group,

R^2 stands for a hydrogen atom,

X means an oxygen atom,

Y is a hydroxy group,

Z represents a hydrogen atom,

A is a group of the formula CH, COH or C-CN,

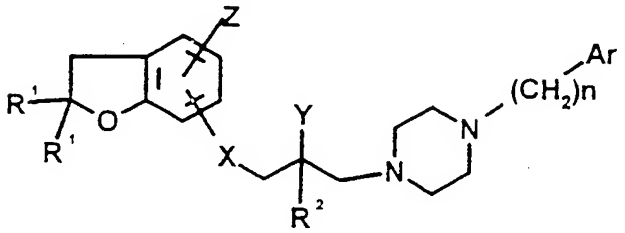
B stands for a methylene group, or

A forms with B a group of the formula -C=C-,

Ar represents a phenyl group optionally substituted by a halo atom, a trifluoromethyl group, a methyl group or a methoxy group; or a methoxynaphthyl group,

or a pharmaceutically suitable acid addition salt thereof as the active ingredient.

11. A pharmaceutical composition as claimed in Claim 8, comprising a piperazinylalkylbenzofuran derivative of the formula



Ia

wherein

R^1 represents a C_{1-4} alkyl group,
R^2 stands for a hydrogen atom,
X means an oxygen atom,
Y is a hydroxy group,
Z represents a hydrogen atom,
Ar' represents a diphenylmethyl group, a pyridyl group, a partially saturated 5-membered heterocyclic group containing two oxygen atoms and being condensed with a phenyl group, or a phenyl group substituted by substituents R^5, R^6 and R^7, wherein
R^5, R^6 and R^7 mean, independently, a hydrogen atom, a halo atom, a trifluoromethyl group, a C_{1-4} alkyl group, a C_{1-4} alkoxy group, or a methylenedioxy group,
n has a value of 0 or 1,
or a pharmaceutically suitable acid addition salt thereof as the active ingredient.

12. A pharmaceutical composition as claimed in Claim 11, comprising a piperazinylalkylbenzofuran derivative of the formula Ia, wherein
R^1 represents a methyl group,
R^2 stands for a hydrogen atom,
X means an oxygen atom,
Y is a hydroxy group,
Z represents a hydrogen atom,
Ar' represents a diphenylmethyl group, a pyridyl group, a benzo-1,3-dioxolanyl group or a phenyl group optionally substituted

by one or two halo atom(s), one or two methyl group(s), a methylenedioxy group, a trifluoromethyl group or a methoxy group,

n has a value of 0 or 1,

or a pharmaceutically suitable acid addition salt thereof as the active ingredient.

13. A pharmaceutical composition as claimed in Claim 8, comprising one of the following compounds:

1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran--7-yloxy)-2-hydroxypropyl/-4-(3-trifluoromethylphenyl)-1,2,3,6-tetrahydropyridine,

1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yloxy)-2-hydroxypropyl/-4-hydroxy-4-(3-trifluoromethylphenyl)piperidine,

1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yloxy)-2-hydroxypropyl/-4-hydroxy-4-(4-fluorophenyl)piperidine,

1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yloxy)-2-hydroxypropyl/-4-hydroxy-4-phenylpiperidine,

1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yloxy)-2-hydroxypropyl/-4-hydroxy-4-(3-chlorophenyl)piperidine,

1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yloxy)-2-hydroxypropyl/-4-hydroxy-4-(3-methoxyphenyl)piperidine,

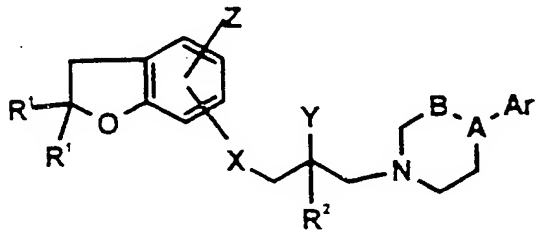
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yloxy)-2-hydroxypropyl/-4-hydroxy-4-(4-methoxyphenyl)piperidine,

1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yloxy)-2-hydroxypropyl/-4-(3-trifluoromethyl-

phenyl)piperidine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-hydroxy-4-(4-methyl-phenyl)piperidine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-cyano-4-phenyl-piperidine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-hydroxy-4-(4-chloro-phenyl)piperidine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-hydroxy-4-(6-methoxy-naphth-2-yl)piperidine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-(diphenylmethyl)-piperazine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-(4-fluorophenyl)-piperazine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-hydroxy-4-(3-trifluoro-methylphenyl)piperazine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-(4-methoxyphenyl)-piperazine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-(benzo-1,3-dioxolan-5--yl)piperazine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-(4-chlorophenyl)-piperazine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-

oxy)-2-hydroxypropyl/-4-benzylpiperazine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-(2,4-dichlorophenyl)-piperazine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-(3-chlorophenyl)-piperazine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-(2-pyridyl)piperazine,
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-(2-methoxyphenyl)-piperazine or
1-/3-(2,2-dimethyl-2,3-dihydro-benzofuran-7-yl-oxy)-2-hydroxypropyl/-4-(3-methoxyphenyl)-piperazine,
or a pharmaceutically suitable acid addition salt thereof as the active ingredient.

14. A method of treatment in which a patient suffering especially from a heart disease or a disease of the central nervous system is treated with a non-toxic dose of a benzofuran derivative of the formula



I

wherein
R^1 and R^2 represent, independently, a hydrogen atom or a C_{1-4} alkyl group,

X stands for an oxygen atom or a sulfur atom,

Y means a hydrogen atom or a hydroxy group,

Z represents a hydrogen atom, a halo atom, a C_{1-4} alkyl group, a C_{1-4} alkoxy group, an amino group, a nitro group, a cyano group, a trifluoromethyl group, a group of the formula $-COOR^3$, $-NHCOR^3$ or $-SO_2NR^3R^4$, wherein

R^3 stands for a hydrogen atom or a C_{1-4} alkyl group,

R^4 is a C_{1-4} alkyl group, or

R^3 and R^4 form, together with the adjacent nitrogen atom, a saturated or unsaturated heterocyclic group having 5 to 10 members and optionally comprising one or more nitrogen atom(s) and/or one or more oxygen atom(s) and/or one or more sulfur atom(s) as the further heteroatom(s),

A means a group of the formula CH, COH, C-CN, $C-COOR^3$ or COR^4, wherein R^3 and R^4 are as defined above,

B represents a methylene group, or

A forms together with B a group of the formula $-C=C-$,

Ar stands for a hydrogen atom, a C_{1-4} alkyl group, a phenyl(C_{1-4} alkyl) group, a biphenylyl group, a naphthyl group, wherein said latter species are optionally substituted by a C_{1-4} alkoxy group or a C_{2-4} alkenyl group; a partially saturated, 5- or 6-membered heterocyclic group condensed with a phenyl group and containing

one or two oxygen atom(s), said heterocyclic group being optionally substituted by one to three C_{1-4} alkyl group; a 5- or 6-membered, saturated or unsaturated hetero cyclic group containing a nitrogen atom and/or an oxygen atom and/or a sulfur atom as the heteroatom; or a phenyl group substituted by the substituents R^5, R^6 and R^7, wherein

R^5, R^6 and R^7 mean, independently, a hydrogen atom, a halo atom, a trifluoro-methyl group, a C_{1-4} alkyl group, a methylenedioxy group, a phenoxy group optionally substituted by a C_{1-4} alkoxy group or by a halo atom; a C_{2-4} alkenyl group, a C_{2-4} alkenyloxy group, a C_{1-4} alkoxy group cptionally substituted by a di(C_{1-4} alkyl)amino group or by a 5- or 6-membered, saturated hetero-cyclic group containing one or two nitrogen atom(s) or a nitrogen atom and an oxygen atom, wherein said heterocyclic group is optionally substituted by a C_{1-4} alkyl group, or

A stands for a group of the formula $N-(CH_2)_n-Ar'$, wherein

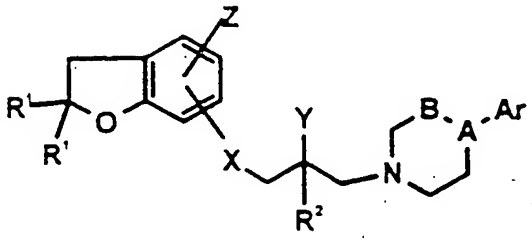
Ar' represents a diphenylmethyl group, a pyridyl group, a pyrimidinyl group, a naphthyl group, wherein said latter group is optionally substituted by a C_{1-4} alkoxy group or a C_{2-4} alkenyloxy group; a partially saturated, 5- or

6-membered heterocyclic group condensed with a phenyl group and containing one or two oxygen atom(s), said heterocyclic group being optionally substituted by one to three C_{1-4} alkyl group(s); or a phenyl group substituted by the substituents R^5, R^6 and R^7, wherein R^5, R^6 and R^7 are as defined above,

n has a value of 0 or 1,

or a pharmaceutically suitable acid addition salt thereof.

15. A process for the preparation of a pharmaceutical composition having especially cardioprotective action or being suitable for the treatment of a disease of the central nervous system, characterized in that a benzofuran derivative of the formula



I

wherein

R^1 and R^2 represent, independently, a hydrogen atom or a C_{1-4} alkyl group,

X stands for an oxygen atom or a sulfur atom,

Y means a hydrogen atom or a hydroxy group,

Z represents a hydrogen atom, a halo atom, a C_{1-4} alkyl group, a C_{1-4} alkoxy group,

an amino group, a nitro group, a cyano group, a trifluoromethyl group, a group of the formula $-COOR^3$, $-NHCOR^3$ or $-SO_2NR^3R^4$, wherein

R^3 stands for a hydrogen atom or a C_{1-4} alkyl group,

R^4 is a C_{1-4} alkyl group, or

R^3 and R^4 form, together with the adjacent nitrogen atom, a saturated or unsaturated heterocyclic group having 5 to 10 members and optionally comprising one or more nitrogen atom(s) and/or one or more oxygen atom(s) and/or one or more sulfur atom(s) as the further heteroatom(s),

A means a group of the formula CH, COH, C-CN, $C-COOR^3$ or COR^4, wherein R^3 and R^4 are as defined above,

B represents a methylene group, or

A forms together with B a group of the formula -C=C-,

Ar stands for a hydrogen atom, a C_{1-4} alkyl group, a phenyl(C_{1-4} alkyl) group, a biphenylyl group, a naphthyl group, wherein said latter species are optionally substituted by a C_{1-4} alkoxy group or a C_{2-4} alkenyl group; a partially saturated, 5- or 6-membered heterocyclic group condensed with a phenyl group and containing one or two oxygen atom(s), said heterocyclic group being optionally substituted by one to three C_{1-4} alkyl group; a 5- or 6-membered, saturated or unsaturated hetero

cyclic group containing a nitrogen atom and/or an oxygen atom and/or a sulfur atom as the heteroatom; or a phenyl group substituted by the substituents R^5, R^6 and R^7, wherein

R^5, R^6 and R^7 mean, independently, a hydrogen atom, a halo atom, a trifluoromethyl group, a C_{1-4} alkyl group, a methylenedioxy group, a phenoxy group optionally substituted by a C_{1-4} alkoxy group or by a halo atom; a C_{2-4} alkenyl group, a C_{2-4} alkenyloxy group, a C_{1-4} alkoxy group optionally substituted by a di(C_{1-4} alkyl)amino group or by a 5- or 6-membered, saturated heterocyclic group containing one or two nitrogen atom(s) or a nitrogen atom and an oxygen atom, wherein said heterocyclic group is optionally substituted by a C_{1-4} alkyl group, or

A stands for a group of the formula $N-(CH_2)_n-Ar'$, wherein

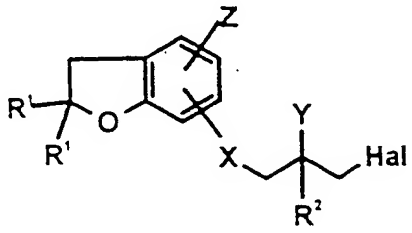
Ar' represents a diphenylmethyl group, a pyridyl group, a pyrimidinyl group, a naphthyl group, wherein said latter group is optionally substituted by a C_{1-4} alkoxy group or a C_{2-4} alkenyloxy group; a partially saturated, 5- or 6-membered heterocyclic group condensed with a phenyl group and containing one or two oxygen atom(s), said heterocyclic group being optionally

substituted by one to three C_{1-4} alkyl group(s); or a phenyl group substituted by the substituents R^5, R^6 and R^7, wherein R^5, R^6 and R^7 are as defined above,

n has a value of 0 or 1,

or a pharmaceutically suitable acid addition salt thereof is converted to a pharmaceutical composition using one or more carrier(s) commonly employed in the manufacture of drugs.

16. A halide of the formula



II

wherein

R^1 and R^2 represents, independently, a hydrogen atom or a C_{1-4} alkyl group,

X stands for an oxygen atom or a sulfur atom,

Y means a hydrogen atom or a hydroxy group,

Z represents a hydrogen atom, a halo atom, a C_{1-4} alkyl group, a C_{1-4} alkoxy group, an amino group, a nitro group, a cyano group, a trifluoromethyl group or a group of the formula $-COOR^3$, $-NHCOR^3$ or $-SO_2NR^3R^4$, wherein

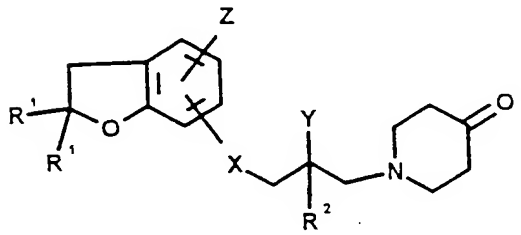
R^3 stands for a hydrogen atom or a C_{1-4} alkyl group,

R^4 means a C_{1-4} alkyl group, or

R^3 and R^4 form, together with the adjacent nitrogen atom, a saturated or unsaturated heterocyclic group having 5 to 10 members and optionally comprising one or more nitrogen atom(s) and/or one or more oxygen atom(s) and/or one or more sulfur atom(s),

Hal represents a halo atom.

17. A ketone of the formula



XV

wherein

R^1 and R^2 represents, independently, a hydrogen atom or a C_{1-4} alkyl group,

X stands for an oxygen atom or a sulfur atom,

Y means a hydrogen atom or a hydroxy group,

Z represents a hydrogen atom, a halo atom, a C_{1-4} alkyl group, a C_{1-4} alkoxy group, an amino group, a nitro group, a cyano group, a trifluoromethyl group or a group of the formula $-COOR^3$, $-NHCOR^3$ or $-SO_2NR^3R^4$.

wherein

R^3 stands for a hydrogen atom or a C_{1-4} alkyl group,

R^4 means a C_{1-4} alkyl group, or

R^3 and R^4 form, together with the adjacent nitrogen atom, a saturated or unsaturated

heterocyclic group having 5 to 10 members and optionally comprising one or more nitrogen atom(s) and/or one or more oxygen atom(s) and/or one or more sulfur atom(s).